

Four decades of satellites in orbit.

Thousands of images of Earth's surface.

An unbroken history of human and natural changes to the surface of our planet.

LANDSAT



LANDSAT

For over four decades, Landsat satellites have captured images of Earth.

Landsat satellites sweep around our planet continuously, capturing hundreds of scenes every day. Typically two Landsat satellites are in orbit at a time, working as a team.

Landsat satellites have observed Earth's surface since the 1970s, creating a vast historical record of changes to the planet, from expanding cities to shrinking glaciers.


Landsat's data is important for water and land management, observing the health of ecosystems and impacts of climate change, and much more. It has been used to monitor forest fires and aquatic pollution, give advance warnings of floods, locate groundwater in drought-stricken regions, and even identify soggy mosquito breeding grounds for spraying.

Landsat is a joint initiative between NASA and the United States Geological Survey.

landsat.gsfc.nasa.gov

Tanezrouft Basin, Algeria: This parched region is known colloquially as the "Land of Terror" for its hostility to life. Annual rainfall in this area of the Sahara desert is less than 0.2 inches (5 mm). Wind erosion from millenia of sandstorms has exposed ancient folds in the rock. This Landsat 8 image shows stunning patterns of rings of exposed sandstone strata. Walls of the sandstone canyons rise as high as 1,600 feet (500 m), and salt flats are visible in their lower reaches.

Card 1 of 2. Full image and more info:
<https://landsat.visibleearth.nasa.gov/view.php?id=91349>

An aerial photograph of a desert landscape, showing intricate patterns of sand dunes, dry riverbeds, and small, isolated water bodies. The colors range from warm yellows and oranges to deep blues and greens. A large, semi-transparent circular overlay is centered on the image, serving as a background for the text.

We can watch our planet change.

Observe shifting surfaces of land
and water.

Prevent threats to humanity and
the environment.

LANDSAT
NINE



LANDSAT 9

Landsat 9 is the next Landsat observatory, part of a project spanning more than 40 years and multiple observatories.

Targeted to launch in 2020, Landsat 9 will capture images of Earth's surface from 438 miles (704 km) above the planet's surface. The observatory will continuously collect data while completing an orbit of Earth every 90 minutes, creating a record of natural and human-made changes to the planet.

Landsat 9 carries two science instruments:

- **OLI-2** looks at white light broken into colors. These colors reveal information about what's happening on Earth. OLI-2 also sees certain types of infrared radiation. The instrument is so precise that it can show whether crops are thriving or suffering from drought.
- **TIRS-2** is Landsat's heat-viewing infrared instrument. It can be used to observe wildfires, study active volcanoes, and monitor "evapotranspiration," or water evaporating into the air.

Landsat 9 data will be used to make decisions about land and water management, monitor climate change, observe urban growth, and more.

landsat.gsfc.nasa.gov/landsat-9

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Card 2 of 2. Full image and more info:
<https://landsat.visibleearth.nasa.gov/view.php?id=91349>